TARC NEWSLETTER

TITUSVILLE AMATEUR RADIO CLUB

OCTOBER, 1995

OFFICERS

PRESIDENT: Charles Fagel KR4YZ 267-1475 SECRETARY: Bobbi Sue Wood AD4VV 268-8537
V.PRESIDENT: Tom Nguyen AD4NA 636-6663 TREASURER: Clyde Lee K4EOS 267-9375

CLUB INFORMATION

TARC Meetings: Monthly on 4th Tuesday at 1900 hrs at Jaycee Building
TARC Nets: VIP - Thursdays at 1000 hrs on 146.910
Friendship - Thursdays at 1830 hrs on 146.910
Mosquito - Wednesdays at 1900 hrs on 28.333
TARC Repeaters: VHF - 146.910 and 146.970. UHF - 444.150

PRESIDENT'S CORNER

By Charles Fagel KR4YZ

A couple of "don't forgets" for this month are: The September meeting will be a short one, with the pot luck dinner to follow. If you have not already contacted Kay KD4VFQ, do so immediately. The time is getting short.

The October meeting on the 24th is the deadline for nominations for the "Ham Of The Year" award, so get your nominations in to any one of the club officers, and include your reasons. Any activity of a ham will be considered and does not need to be operational related.

Due to the increase of interference from distant stations, tone access to our repeaters is being considered. In order to make a decision, input from you, the members is requested. It is important for us to know if you are operating 2 mtr. equipment that does not have tone access capability. If you are, please notify Bobbi Sue AD4VV, giving her your name, call sign, manufacturers name, model and whether or not you have the manual. Your giving us this information at the September meeting - or shortly thereafter - will be appreciated.

The following article was brought to our attention, and with our elections coming up, we thought we would include it in our news letter.

NOMINATING COMMITTEE GUIDELINES

The Nominating Committee is an important group as they provide the recommended candidates for the future leadership and management of the club. These guidelines are intended to point out various factors you should consider in your deliberations.

1. This committee is formed in October and must present its slate of candidates at the November meeting.
2. The committee needs to meet as soon as possible so they can disseminate their results in the club newspaper and club repeaters prior to the November meeting.
3. Select QUALIFIED and eligible candidates for each office, taking into consideration not only these factors but their family or job situation that may preclude their having time to devote to club business.
4. Membership on this committee does not preclude one's eligibility to an office, but this right should not be abused by nominating an excessive number from the Committee membership.
5. The committee should ask for and welcome suggestions for nominations from other club members with the stipulation that the entire committee will make the final decisions.
6. Beginning with the office of President, contact potential candidates to explain the office requirements

.....see page 3.

HAPPY BIRTHDAY

OCT.	1	KD4PLA BILL HEIL
OCT.	7	KC4UWK AL KOLLER
OCT.	8	KE4NUZ HARRY SHETLER JR.
OCT.	8	KR4CY BILL PALM
OCT.	9	KE4BBI PENNY POULIN
OCT.	12	KE4LSV KENT THOMPSON
OCT.	12	W8DGD JIM CAMPBELL
OCT.	12	KE4KDU KERRY THOMPSON
OCT.	13	KE4GOP BERNERO FLANAGAN
OCT.	16	W4LEW JOHN WALTERS
OCT.	16	KE4YQD RICK MEADOWS
OCT.	16	AC4WM MITCH MATHENY
OCT.	18	N4MCZ ROD IWAN
OCT.	22	KE4MXG CARL LINEBAUGH
OCT.	22	KR4WB CHARLIE EATON
OCT.	22	N4UTR BOB MARTIN
OCT.	23	N4SCY OZZIE OSBAND
OCT.	23	KE4FFA MONA SKIDMORE
OCT.	24	AC4JX DAVE CREASMAN
OCT.	25	K4KON BRUCE HOOVER
OCT.	25	KC5HEZ DANIEL BIRD
OCT.	26	N9FAB LORRAINE TENDICK
OCT.	27	WB4EZT NICK NICHOLAS
OCT.	28	KE4MXH MARILYN LINEBAUGH
OCT.	29	KH6GH ART ZIPPLER
OCT.	29	KC4VVG WALT HART
OCT.	30	KE4MXI PETER LORENZI

THIS AND THAT

By Joan Hoag KE4SXU

The assumption that Indians cannot be defined...[except] as victims strikes me as flawed. They are intrinsically interesting, period. [Perhaps 40 million] energetic, adaptable people in the 10,000 years following the Ice Age overran this continent. They contributed to the extinction of species, altered broad landscapes (50,000 trees went into the construction of Chaco Canyon settlement in what is now New Mexico) and developed heterogeneous societies of great complexity. The celestial/terrestrial tangle of Indian life, (myth & religion) remains the most compelling attribute of our continental predecessors. "Cultures at War" James Cinaway

Every mother is a judge who sentences the children for the sins of the father. Rachel West in "The Judge"

When I look back upon my life
nigh spent, nigh spent,
Although the stream as yet flows on
I more of follies than of sins repent....
George McDonald

"Khong ca gi guy hong doc lap tu da." "There is nothing more precious than independence and freedom." Ho Chi Minh (1890-1969) Seen on red-lettered banners throughout Vietnam.
"Khong ca gi." "There is nothing." Graffiti seen throughout Vietnam. "Vietnam Since The War" (1975-1995) Frederick Z. Brown

The more refined one is, the more unhappy. Chekhov

Vilify!Vilify!Some of it will always stick. Beaumarchais

Those who complain are never pitied. Jane Austin

If some catastrophe is not announced every morning, we feel a certain void. "Nothing in the paper today", we sigh. Valéry

Progress is the mother of problems. Chesterton
Know thyself? If I knew myself, I'd run away. Goethe

Every luxury must be paid for and everything is a luxury, starting with being in the world. Pavese

The art of forgetting can be essential to the art of living. Shakespeare said, "What's gone and past help should be past grief." and "things without remedy should be without regard; what is done, is done."

Long discussions are very often the tools that victimizers use." Dr. Wayne W. Dyer "Pulling Your Own Strings"

If you do not wish a man to do a thing, you had better get him to talk about it; for the more men talk, the more likely they are to do nothing else. Carlyle

.....from page 1
and solicit their willingness to accept a nomination. Do not make any promises or commitments at this time.
7. Before finalizing the slate of nominees, you may contact the presidential candidate and consider his/her comments on the other candidates since he/she will need to work closely with them in the coming year.

If you have done your job well, the election process will go smoothly to vote your suggested nominees into office. However, don't be upset about nominations from the floor, as some of these are gestures of friendship or spur of the moment thinking, but of course, could represent factors you may have overlooked.

DIGITAL SPREAD SPECTRUM STORE-AND-FORWARD COMMUNICATIONS SATELLITE

From W5YI Report

The following from the Naval Postgraduate School tells about an exciting new ham satellite that is due to be launched in Jan. 1997 from the Space Shuttle.

INTRODUCTION: The Petite Amateur Navy Satellite (PANSAT) is a small, spread-spectrum communication satellite developed by the Naval Postgraduate School (NPS) as an educational project for officer students. PANSAT will be a tumbling spacecraft with a weight of 150 pounds to be completed in 1996, and will most likely be launched from the Space Shuttle in January, 1997, by means of the Hitch-Hiker program. The launch will place PANSAT in a Low Earth Orbit (LEO) with an inclination of at least 28 degrees. The spacecraft will supply direct-sequence spread-spectrum modulation with an operating center frequency of 436.5 MHz, a bit rate of 9600 bits per second and 4 MB of message storage. Amateur radio ground stations will be able to utilize PANSAT for store-and-forward communication.

EDUCATIONAL OPPORTUNITIES: PANSAT offers officer students an opportunity to gain practical education in Space Systems Engineering and Operations by way of Master's degree theses, class projects and directed study courses. Topics include areas such as mission operations, astrodynamics, mechanical and electronic subsystem design, system integration, and protoflight testing. As of February, 1994, approximately forty PANSAT related theses have been completed with an additional twelve in progress.

SPREAD-SPECTRUM MODULATION: Direct-sequence (DS) spread-spectrum modulation is a technique that spreads a conventional narrow-band signal by mixing it with a bit stream. The result is a dilution of the signal energy with respect to band width. The spread-spectrum signal has the same energy per bit as the narrowband signal, but the power density at any one frequency is significantly lower. The signal can be spread to such a point that it is entirely below the noise level of a conventional receiver, making it difficult to detect or intercept. Amateur spread-spectrum (SS) emission is authorized in all bands above 420 MHz subject to certain logging requirements specified in Section 97.311. The transmitter power must not exceed 100 watts. The receiver of a spread-spectrum signal uses the same bit stream to despread (demodulate) the signal. Through the despreading of the signal, conventional signals are suppressed, making it resistant to interference and difficult to jam.

POTENTIAL APPLICATIONS: Through use by the amateur radio community PANSAT will supply a means to demonstrate spread-spectrum communications. In addition, PANSAT provides many potential applications for low-cost communications. The low probability-of-intercept would be an important feature for the military in downed pilot rescues. The pilot could obtain his/her location through a GPS system and uplink the information to the orbiting satellite at low risk. Examples of civilian uses include emergency rescue and communication to remote areas.

SPACECRAFT CONFIGURATION AND DESIGN: PANSAT has a robust structural design with high margins of safety and is adaptable to a number of launch vehicles. The satellite is approximately 19" in diameter and has no altitude control or propulsion. Eighteen square and eight triangular aluminum panels make up the outer surface of the satellite. Seventeen of the square panels are equipped with solar panels and four dipole antennas are attached in a tangential turnstile configuration to the triangular plates. The spacecraft interior structure is composed of two equipment plates and a cylindrical support. The three main spacecraft subsystems are: electrical power (EPS), digital control (DCS), and communication (COMM).

TESTING: To prepare the spacecraft for flight, it will undergo functional and environmental testing at the system and subsystem level. The environmental testing includes thermal vacuum, random vibration, and electromagnetic interference and compatibility

(EMI/EMC) testing. All testing will be conducted using NPS space test facilities.

GROUND STATION: A modified amateur satellite ground station is needed to communicate with PANSAT. The NPS ground station utilized off-the-shelf software, is micro-computer controlled, and is equipped with a spread-spectrum modem. The NPS ground station is similar to a typical amateur radio user station, except it has spacecraft command capability. The NPS ground station is also utilized as a classroom instructional laboratory.

KH6HME CLAIMS NEW 2 METER DX RECORD

From Amateur Radio Newsline #939

KH6HME has done it again! He has set yet another overwater distance record on the 144MHz band between Hawaii and Washington State. On July 1st, Paul Lieb operating from his DX location atop Mauna Loa volcano, worked Jim Costello, W7FI, in Woodinville, Washington, near Seattle - a distance of 4333 kilometers.

The contact came about as the result of a tropospheric ducting opening that began June 28, when the 144 dot 170 MHz beacon on Mauna Loa at 13,680 ft. above sea level, was heard on the West Coast. QST VHF columnist Emil Pocock, W3EP called the next three days the most widespread Hawaii to West Coast opening ever recorded.

In the early evening of June 30, KH6HME worked WI7Z and N7KSI, both near the coast of Washington, the first ever 144 MHz contacts from that state to Hawaii, and then worked N7AVK in Oregon. The breakthrough came the next day at 06:00 when KH6HME worked several Seattle area stations, beginning with W7FI, and was heard by VE7SKA, who could not make himself heard in Hawaii.

Using computer software, the various Seattle area stations calculated who was the farthest from Mauna Loa, and the winner was W7FI. The record-setting distance was 58 km farther than the six year old record.

Unfortunately, the conditions did not extend to higher bands; KH6HME made 432 MHz contacts with K6QXY and W6SYA, but no others were completed.

The previous record was set between KH6HME and XE2XQ on Baja, CA - a distance of 4276 km on July 13, 1989.

GERMAN REPEATER HEADED TO SPACE

A full blown open UHF FM voice repeater will soon be on the air from space! Three Germans are putting it there. It's called Safex Two, and the first section of this repeater will be carried to the Russian MIR space station by German Cosmonaut Thomas Reiter, DF4TR. This, when he arrives on MIR for the European Space Agency's EURIMIR 95 mission that's scheduled to begin as this newscast goes to air. The rest of the system will be carried to MIR in the course of several missions over the next few months.

The 70 centimeter space repeater, actually an FM transponder, was built by Thomas Kieselbach, DL2MDE. Initially it will be FM only with downlinks at 437.925, 437.950 and 437.975 MHz, and an uplinks in the lower part of the 435 MHz space communications subband. Safex Two will later be improved adding a 23 centimeter to 13 centimeter transponder, capable of broad bandwidth modes including fast scan ATV.

The German design team has not announced a date when the Safex Two orbital repeater will come on line, but using it will not be the same as using your favorite local machine. While it will give coverage over hundreds if not thousands of miles, you will need plenty of power and the ability to computer track the MIR station space station with a beam antenna in order to use it. Alternatively, hams might consider setting up gateway repeaters, FM repeaters on any band tied to other repeaters with the ability to track the MIR. This, so that any ham with a handheld can enjoy the soon to be on the air repeater in space.

In the meantime, regular users of MIR can talk directly to DR4TR who will be on the air using the call sign DP0MIR on the normal 2 meter frequencies of Primary frequencies of 145.800, 145.550 and possibly 145.200 MHz. These frequencies were adopted as standard for MIR and SAREX shuttle activities at the IARU session of this year's AMSAT-UK Colloquium. QSLs for contacts with this mission will be handled via the usual German DARC QSL bureau.

City of Titusville

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TITUSVILLE, FLORIDA 32796-3584
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FAX (407) 268-6009

September 5, 1995

Bud Hughes
Titusville Amateur Radio Club
2445 Cheney Highway
Titusville, Florida 32780

Dear Bud:

The following is provided as a follow-up to your assistance during Hurricane Erin. As we discussed during our last emergency plan steering group meeting, your services and assistance was invaluable to the City. Through your efforts, and the efforts of the other members of the TARC and REACT organizations, you enabled the City to proactively address sheltering needs and maintain up-to-date storm status from the field.

On behalf of the City and the Emergency Plan Steering Group, we acknowledge your organizations commitment to assisting the City and the community we serve. I wanted to pass on our appreciation for a job well done. Please pass along our appreciation to all those involved in the Hurricane Erin response.

Thanks again for all of your help. I look forward to the continued development of our positive relationship and the benefits it has on our community.

Sincerely,

Thomas A. Harmer, Fire Chief
Titusville Fire and Emergency Services

TAH/km

TREASURERS REPORT

By K4EOS Clyde Lee

BALANCE FORWARD FROM 1994	1,070.58
DEPOSITS Year to date	4,178.05
TOTAL INCOME	$5,248.63
EXPENDITURES	3,914.36
BALANCE AS AT 8/31/95	$1.334.27

MONEY TALK

I am sure that members are aware that TARC has certain fixed expenses (insurance, telephone, postage, newsletter, corporate fee, etc.). In addition there are random expenses involving the upkeep of the repeaters.

The biggest part of club income comes from your dues support, and lately these dues have been slow coming in. Perhaps you missed the reminder notice send out in your newsletter, or perhaps you were away for the summer. Please take a moment now to check the address label on this letter. You will see a date right after your call. That date is your renewal date. If you are in arrears, PLEASE get your dues to us ASAP. Our club is only as great as each member makes it. The club needs you, and it needs your dues support!

To the majority of you who pay on time, a big THANK YOU. K4EOS Clyde - club treasurer

AUGUST MEETING

By Bobbi Sue Wood AD4VV

The meeting was called to order at 1900 hours by Chuck KR4YZ before 64 members and guests. After the 'Pledge', a moment of silence, and the introductions. The following items were covered:

1. Cliff KC4SYD summarized the hamfest activities. Cliff noted there is a need for some 70 volunteers in order to make this event a success, and he asked for commitments NOW!

2. Kay KD4VFQ reported that the potluck dinner planned for the September meeting is a definite "go". Kay is coordinating the dishes to insure an appropriate variety, and she asked those who may attend as a 'single' to check with her. She needs things like napkins, plates, rolls, etc.

3. Bud K4CWG requested a board of directors meeting in order to discuss a possible relocation of the 970 repeater.

4. Ralph AD4LE reviewed the recent emergency activities, and he noted much remains to be done. He thanked all those who manned the various support stations during the storm alert.

5. Kay AD4VFQ advised that she will have available at the September meeting 2 copies of the club handbook to be used as reference, and that she will take orders for copies at $2.00 per copy to be delivered at the October meeting.

6. The following applicants were voted as members: Tom AC4DY; Craig KE4MWW; Janet KE4MUX

The 50/50 drawing was won by David KE4TRA, who donated his winnings to the club. Thank you, sir!

The meeting was adjourned at 2030 hrs, and refreshments courtesy of Kay KD4VFQ were enjoyed.

BOARD MEETING MINUTES

The meeting was convened on Aug. 28, 1900 hrs. at Expedient Services with the required quorum in attendance. The following items were discussed:

1. KR4YZ advised that the Titusville Housing Authority has advised the club it may be necessary to relocate the 146.970 repeater. Accordingly, it was suggested that the members give thought to possible alternative locations.

2. K4SJC noted a new antenna was installed on the 91 repeater. The old Diamond-500 antenna is to be returned to the manufacturer for assessment. The intent is to make the repaired antenna available for the new repeater.

3. KR4YZ informed the members that he is preparing an updated version of the club by-laws for review and approval.

4. The members agreed that further plans/work regarding a fourth repeater will be put on hold.

The meeting was adjourned at 2045 hrs.

ABELL'S ANECDOTES

By Pike W4EPU

SHOOT-OUT AT THE OLD RED BARN

It was near sundown. The trio had ridden long and hard to arrive at that precise time. They knew the sun would be at their backs. If there was to be a shoot-out, it would give them a slight edge when they confronted those in the barn who would be looking into the sun.

All three were armed with long guns, knowing very well a six-shooter is good only at close range. The bad part of being at close range is that your opponent is just as close to you.

The trio was made up of two young and one old gunmen. The youngest of the three was barely sixteen, but he had already had several encounters and a great deal of experience with his gun. The next one was only two years older at eighteen. The oldest of the three, the father, was much larger than his compadres, towering over them like a grizzly bear. His broad shoulders foretold of his ability to take care of himself. His black hat was pulled down over his eyes and his face was further hidden behind a short, scraggly beard. Of the three he was the one to give the greatest amount of respect.

They left their mounts behind some bushes one hundred yards from the barn and proceeded cautiously on foot, not knowing whether the element of surprise was with them. They lined up against the barn contemplating their next move. The barn door was ten feet wide, two five foot doors connected at the center with a lock hasp. Fortunately, it was not locked. Only a bent nail held the hasp together. The oldest hombre quietly lifted the nail from the hasp and dropped it on the ground. He slowly opened one door wide enough to pass through and motioned the younger men to follow.

By that time the sun was sinking in the west. Except for the twilight entering the partially open door, the inside of the barn was beginning to darken. However, while they held their guns at high port and ready to fire, they could see their prey, as their prey could also see them. The element of surprise was gone. The youngest of the three could no longer stand the anxiety and excitement. He opened fire. The eighteen year old followed suit. Pigeons were fluttering throughout the barn, scattering feathers abound. BBs were falling harmlessly to the dirt floor, their energy spend ricocheting around the rafters and tin roof. The old man, perturbed that they fired before he gave the order, nonetheless commenced firing his more powerful pellet gun.

When the smoke had settled, the pigeons had all escaped. Oh well, there would always be another day, another time, and another shoot-out. No doubt animal rights people would call them murderers. But they had already tried fake owls and noise makers to no avail. They realized that the only solution was by lethal means. After all, they did give the pigeons a fighting chance by not using shotguns.

If confronted by the animal folks, the old man would probably say, "Well Goldarn it, let me tell you something. Walking around in pigeon-smidgen every time you go to the barn ain't no fun..."

FOR SALE
KENWOOD TS830 SM W/EXT.
DIGITAL FREQ. VFO
(MODEL DFC230)
"GOOD FOR DXING'
$585.00
KA4NZM DICK RUFFE
407-267-2967

FOR SALE
TENTEC CORSAIR HF TXVR
WITH P/S AND MIKE
COVERS ALL BANDS 10-160
LIKE NEW CONDITION
$800.00
KS4GP WARREN
268-2199

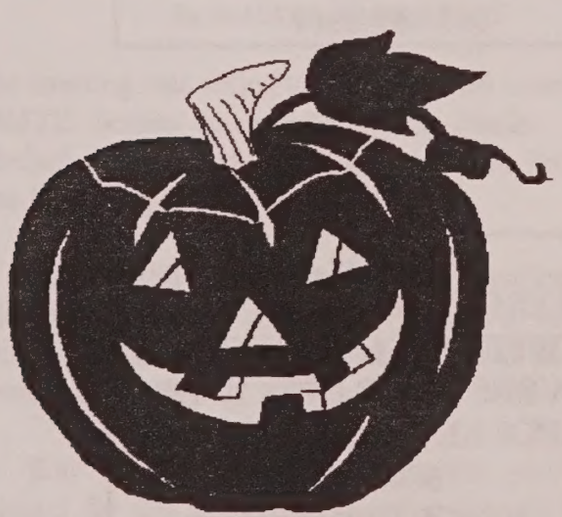
MEMBERSHIP UPDATE

Total membership: 277. (208 regular, 59 family, 10 honorary.)

NEW MEMBERS: DEBORAH HARRINGTON
KF4CDK WILLIAM BLUM
KE3ICM ANDY WADE

RENEWALS: N4DQT BOB YOUNG
KB4CAS MICHELL YOUNG
KB4CAR JEAN YOUNG
AC4KU AL SANFORD
KD4ZAH JEWEL SANFORD
W4LAC JASON RUDISILL
WB4PXO JIM MORGAN
KD4RQS JOHN WOOLEY
WB2UNK GEORGE FLORES
KC4WGU MIKE HENSLEY

HAMFEST CALENDAR

10/7	Orlando
10/7	Biloxi, MS
10/8	Boaz, AL
10/14	Augusta, GA
10/20-21	Starke, FL
10/21-22	West Palm Beach, FL
10/28	Port St. Lucie, FL
11/4	Lake Worth FL
11/4	Mobile, AL
11/4	Eustis/Mt.Dora, FL
11/4-5	Lawrenceville, GA
11/11	Titusville ARC Cliff Hoag, KC4SYD
11/18-19	Tampa, FL
12/2	Okeechobee FL
12/2	Dotham, AL
12/2	Ocala FL
12/9	Lake City, FL

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